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(54) STRUCTURE AND METHOD FOR FORMING A SHIELDED GATE TRENCH FET WITH AN INTER-ELECTRODE DIELECTRIC HAVING A NITRIDE LAYER THEREIN

(76) Inventor: Scott L. Hunt, West Jordan, UT

Correspondence Address:

TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER, EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 (US)

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(57) ABSTRACT

A shielded gate field effect transistor (FET) comprises a plurality of trenches extending into a semiconductor region. A shield electrode is disposed in a bottom portion of each trench, and a gate electrode is disposed over the shield electrode in each trench. An inter-electrode dielectric (IED) extends between the shield electrode and the gate electrode. The IED comprises a first oxide layer and a nitride layer over the first oxide layer.

